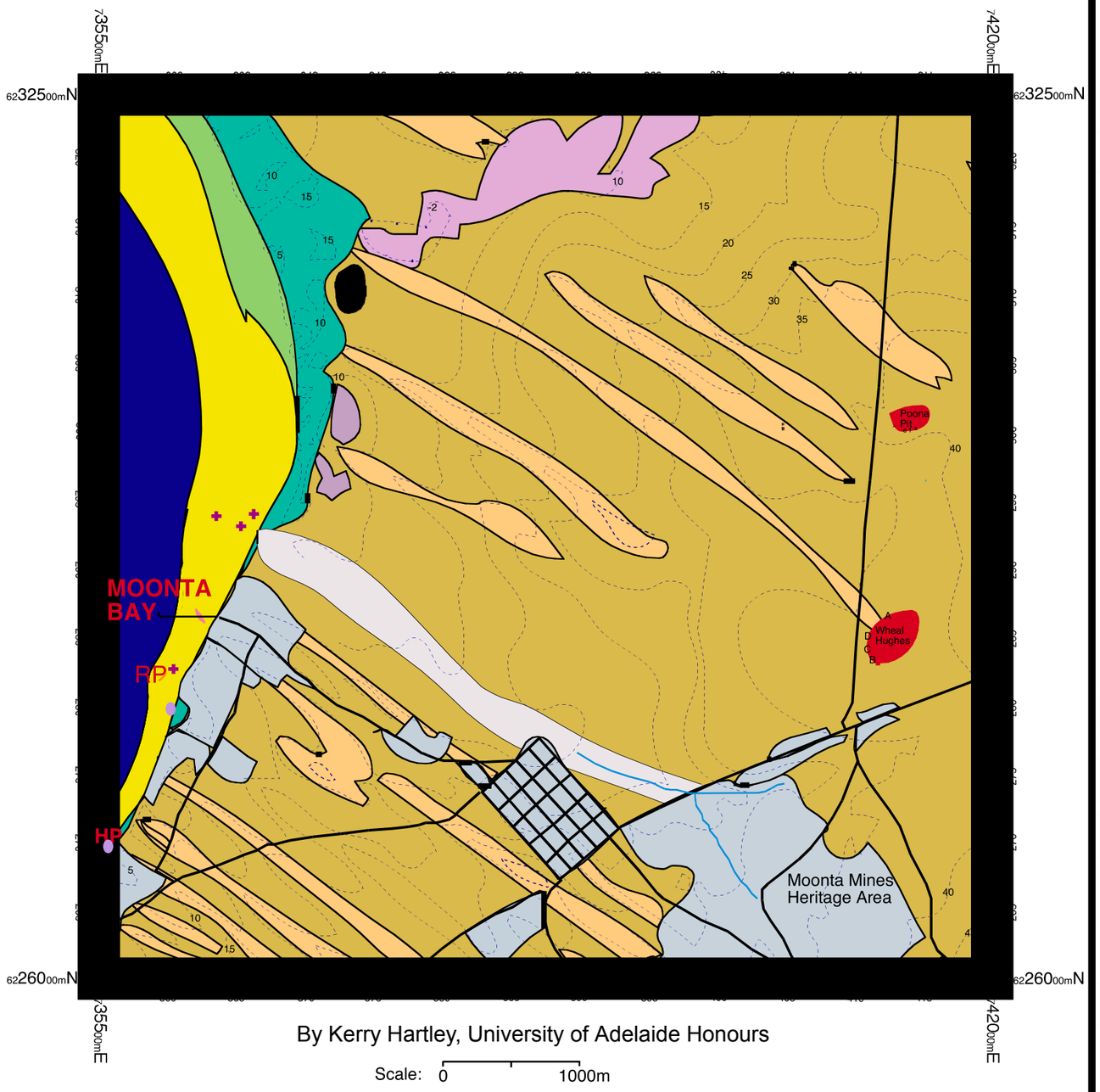

Figure 7. Regolith Landform Map, Moonta, Northern Yorke Peninsula, SA.

LEGEND

N

In Situ Regolith

Low lying platforms - mottled Proterozoic bedrock. Iron rich mottles with predominately angular quartz grains, some with iron staining. Some pegmatite veins still in place are evident.

Rocky outcrops and low lying platforms - including weathered Cambrian sandstone.

Transported Regolith

Coastal Beach Zone - generally a thin veneer of beach sand with interspersed rocky outcrops, including sandstone occurring <1 m below surface. Sand consists of medium grained, well rounded quartz grains, some with iron staining.

Barrier Dunes - low (<0.5 m) linear dunes, sub-parallel to coast, consisting of fine-medium grained, well rounded quartz grains.

Coastal Dunes - up to 15m high sand dunes vegetated with *Acacia* trees and low lying succulents. Fine grained, well rounded clear and milky quartz.

Seif Dunes - a series of parallel, linear sand dunes trending NW-SE forming gentle rolling hills. Consisting of buff to orange coloured calcareous sands. Quartz grains are fine to medium sized and subround to rounded. Calcrete hardpans occur at or near surface and predominately consist of coalesced calcrete nodules and/or pisoliths. Multiple calcrete horizons occur at varying depths. A thin veneer of soil generally overlies the dunes and consists of grey-brown coloured silt.

Swales and Plateau area - consist of alluvial silty, sandy clays and mottled clays with occasional gravel lens. Material is highly calcareous and within the plateau area, nodular, pisoliths and hardpan calcrete occurs within the upper 2.5 m of material. A thin veneer of grey to greyish brown aeolian silt overlies the alluvial sediments.

Salt Pans - Pan edges are vegetated with saltbush and *Halidacea* sp and consist of medium grained orange quartz rich sands. Marginal flats consist of quartz rich orange coloured sand, that increase in clay content towards centre of pan. Centre of Pans are characterised by upto 5cm of halite crystals overlying a black fine grained organic rich clay. Coalesced calcrete nodules often exist beneath the black clay. Sand lunettes with minor clay, exist on NE side of pans suggesting SW wind direction during formation. Lunettes are generally less than 1 m in height.

Low lying drainage area consisting of fine grained, brown-dark brown clays.

Clay Pans - consist of fine, dark brown coloured clays.

Silcreted Cambrian sandstone boulders, overlying a highly mottled material with a ferruginous crust.

Miscellaneous

Open Cut Copper Mines

Anthropogenic Overprint

Moonta Bay

Racetrack

Drainage

Major Roads

25 Contours

HP Harrys Point

RP Rossiters Point

Location of coastal sampling from cliff sections. Note that the cliffs extend from Moonta Bay to south ofHarrys Point. See text for descriptions.